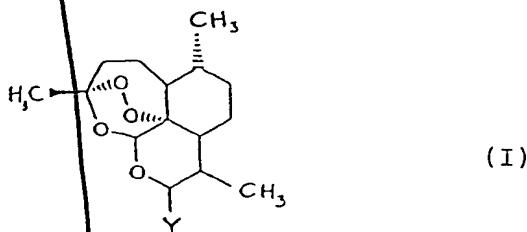


CLAIMS

1. A compound of the general formula I



or a salt thereof,

in which

10 Y represents a halogen atom, an optionally substituted cycloalkyl, aryl, C-linked heteroaryl or heterocyclylalkyl group or a group -NR<sup>1</sup>R<sup>2</sup>; where

$R^1$  represents a hydrogen atom or an optionally substituted alkyl, alkenyl or alkynyl group;

15 R<sup>2</sup> represents an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, aryl or aralkyl group; or

$R^1$  and  $R^2$  together with the interjacent nitrogen atom represent an optionally substituted heterocyclic group or an amino group derived from an optionally substituted heterocyclic group.

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for use in the treatment and/or prophylaxis of a disease caused by infection with a parasite other than an organism of the genus Plasmodium.

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2. A compound according to claim 1 in which Y represents a halogen atom.

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3. A compound according to claim 1 or claim 2 in which Y represents a fluorine or bromine atom.

4. A compound according to claim 1 in which Y represents a C<sub>3-8</sub> cycloalkyl group, a C<sub>6-10</sub> aryl group, a 5- to 10-membered C-linked heteroaryl group or a 5- to 10-membered heterocyclyl-C<sub>1-6</sub> alkyl group, each group being optionally substituted by one or more substituents selected from the group consisting of halogen atoms, hydroxyl, C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, C<sub>1-4</sub> haloalkyl, C<sub>1-4</sub> alkoxy, amino, C<sub>1-4</sub> alkylamino, di(C<sub>1-4</sub> alkyl)amino, carboxyl, C<sub>6-10</sub> aryl, 5 to 10-membered heterocyclic and C<sub>1-4</sub> alkyl- or phenyl-substituted 5- to 10-membered heterocyclic groups.

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5. A compound according to claim 4 in which Y represents a C<sub>6-10</sub> aryl group optionally substituted by one or more substituents selected from the group consisting of halogen atoms, hydroxyl, C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, C<sub>1-4</sub> haloalkyl, C<sub>1-4</sub> alkoxy, C<sub>1-4</sub> haloalkoxy, amino, C<sub>1-4</sub> alkylamino, di(C<sub>1-4</sub> alkyl)amino and carboxyl groups.

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6. A compound according to claim 4 or claim 5 in which Y represents a phenyl, naphthyl, anthryl or phenanthryl group, each group being optionally substituted by one or more substituents selected from the group consisting of halogen atoms and hydroxyl, methyl, vinyl, C<sub>1-4</sub> alkoxy and carboxyl groups.

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7. A compound according to any one of claims 4 to 6 in which Y represents a phenyl, fluorophenyl, chlorophenyl, bromophenyl, trimethylphenyl, vinylphenyl, methoxyphenyl,

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dimethoxyphenyl, trimethoxyphenyl, carboxylphenyl, naphthyl, hydroxynaphthyl, methoxynaphthyl, anthryl or phenanthryl group.

5 8. A compound according to any one of claims 4 to 7 in which Y represents a phenyl or trimethoxyphenyl group.

10 9. A compound according to claim 1 in which Y represents a group  $-NR^1R^2$  where  $R^1$  represents a hydrogen atom or a  $C_{1-6}$  alkyl group and  $R^2$  represents a  $C_{1-6}$  alkyl,  $C_{3-8}$  cycloalkyl,  $C_{6-10}$  aryl or  $C_{7-16}$  aralkyl group, or  $R^1$  and  $R^2$  together with the interjacent nitrogen atom represent a 5- to 10-membered heterocyclic group or an amino group derived from a  $C_{1-6}$  alkyl ester of an amino acid, each group being optionally substituted by one or more substituents selected from the group consisting of halogen atoms,  $C_{1-4}$  alkyl,  $C_{1-4}$  haloalkyl,  $C_{1-6}$  alkoxy carbonyl, phenyl, halophenyl,  $C_{1-4}$  alkylphenyl,  $C_{1-4}$  haloalkylphenyl,  $C_{1-4}$  alkoxyphenyl, benzyl, pyridyl and pyrimidinyl groups.

25 10. A compound according to claim 9 in which Y represents a group  $-NR^1R^2$  where  $R^1$  represents a hydrogen atom or a  $C_{1-4}$  alkyl group and  $R^2$  represents a  $C_{1-4}$  alkyl,  $C_{3-6}$  cycloalkyl, phenyl or benzyl group, or  $R^1$  and  $R^2$  together with the interjacent nitrogen atom represent a 6- to 10-membered heterocyclic group or an amino group derived from a  $C_{1-4}$  alkyl ester of an amino acid, each group being optionally substituted by one or more substituents selected from the group consisting of halogen atoms,  $C_{1-4}$  haloalkyl,  $C_{1-4}$  alkoxy carbonyl, phenyl, halophenyl,  $C_{1-4}$  alkylphenyl,  $C_{1-4}$  haloalkylphenyl,  $C_{1-4}$  alkoxyphenyl, benzyl, pyridyl and pyrimidinyl groups.

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11. A compound according to claim 9 or claim 10 in which Y represents a propylamino, cyclopentylamino, cyclohexylamino, phenylamino, fluorophenylamino, chlorophenylamino, bromophenylamino, iodophenylamino, methoxycarbonylphenylamino, biphenylamino, benzylamino, fluorobenzylamino, bis(trifluoromethyl)benzylamino, phenylethylamino, phenyl-methoxycarbonylmethylamino, diethylamino, morpholiny, thiomorpholiny, morpholinosulphonyl, indolinyl, tetrahydroisoquinolinyl, phenylpiperazinyl, fluorophenylpiperazinyl, chlorophenylpiperazinyl, methylphenylpiperazinyl, trifluoromethylphenylpiperazinyl, methoxyphenylpiperazinyl, benzylpiperazinyl, pyridylpiperazinyl and pyrimidinylpiperazinyl group.

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12. A compound according to any one of claims 9 to 11 in which Y represents a propylamino, phenylamino, bromophenylamino, iodophenylamino, biphenylamino, benzylamino, bis(trifluoromethyl)benzylamino, phenylethylamino, phenyl-methoxycarbonylmethylamino or morpholiny group.

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13. A compound according to any one of the preceding claims in which the parasite is an organism of the genus Neospora or the genus Eimeria.

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14. Use of a compound of the general formula I as defined in any one of claims 1 to 12 for the manufacture of a medicament for the treatment and/or prophylaxis of a disease caused by infection with a parasite other than an organism of the genus Plasmodium.

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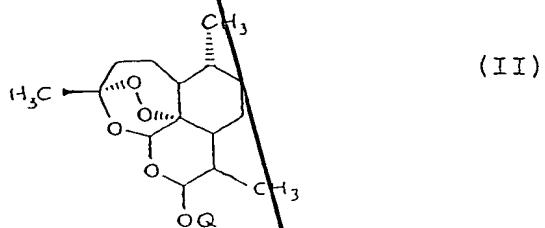
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15. Use according to claim 14 in which the parasite is an organism of the genus Neospora or the genus Eimeria.

16. A compound of the general formula I as defined in any one of claims 1 to 12, with the proviso that, when Y is a group  $-NR^1R^2$  and  $R^2$  represents a phenyl, 3-chlorophenyl, 4-chlorophenyl, 3-bromophenyl, 4-bromophenyl, 4-iodophenyl, 4-methylphenyl, 4-methoxyphenyl, 3-carboxylphenyl or 4-carboxylphenyl group, then  $R^1$  is an optionally substituted alkyl group.

17. A process for the preparation of a compound of the general formula I according to claim 16 which comprises reacting a compound of the general formula II

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in which Q represents a hydrogen atom or trimethylsilyl group, with a suitable halogenating agent to form a compound of the general formula I in which Y represents a halogen atom; and, if desired, reacting the compound of general formula I thus formed either with a Grignard reagent of the general formula  $Y\text{MgX}$  where Y is an optionally substituted cycloalkyl, aryl, C-linked heteroaryl or heterocyclalkyl group and X is a halogen atom to form a compound of general formula I in which Y represents an optionally substituted cycloalkyl, aryl, C-linked heteroaryl or heterocyclalkyl group or with an

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amine of the general formula  $\text{HNR}^1\text{R}^2$  where  $\text{R}^1$  and  $\text{R}^2$  are as defined in claim 13 to form a compound of general formula I in which Y represents a group  $-\text{NR}^1\text{R}^2$  where  $\text{R}^1$  and  $\text{R}^2$  are as defined above.

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18. A process according to claim 17 in which a compound of the general formula I in which Y represents a bromine atom is generated in situ by reacting a compound of the general formula II in which Q represents a trimethylsilyl group with bromotrimethylsilane.

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19. A process for the preparation of a compound of the general formula I according to claim 16 in which Y represents an optionally substituted cycloalkyl, aryl, C-linked heteroaryl or heterocyclalkyl group which comprises reacting 9,10-anhydroartemisinin with a compound of the general formula Y-H, where Y is as defined above, in the presence of a suitable Lewis acid.

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20. A process for the preparation of a compound of the general formula I as defined in claim 1 in which Y represents an optionally substituted aryl or C-linked heteroaryl group which comprises reacting 10-trichloroacetimidoyl-10-deoxoartemisinin with a compound of the general formula Y-H, where Y is defined above, in the presence of a suitable Lewis acid.

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21. A process according to claim 18 in which the 10-trichloroacetimidoyl-10-deoxoartemisinin is generated in situ by reacting a compound of formula II as defined in claim 17 in which Q represents a hydrogen atom with trichloroacetonitrile in the presence of a suitable base.

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15 *PA4* 22. A process for the preparation of a compound of the general formula I as defined in claim 1 in which Y represents an optionally substituted aryl or C-linked heteroaryl group which comprises reacting a 10-  
5 acyloxyartemisinin compound in which the acyloxy group is of formula A-(C=O)-O-, where A represents an optionally substituted alkyl, cycloalkyl, aryl, aralkyl, heterocyclic or polycyclic group, with a compound of the general formula Y-H, where Y is as defined above, in the presence of a Lewis acid.  
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23. A pharmaceutical composition which comprises a carrier and, as active ingredient, a compound of the general formula I according to claim 16.

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24. A compound of the general formula I according to claim 16 for use in the treatment and/or prophylaxis of a disease caused by infection with a parasite of the genus Plasmodium.

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25. Use of a compound of the general formula I according to Claim 16 for the manufacture of a medicament for the treatment and/or prophylaxis of a disease caused by infection with a parasite of the genus Plasmodium.

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26. A method for treating a disease caused by infection with a parasite other than an organism of the genus Plasmodium which comprises administering to a host in need of such treatment a therapeutically effective amount of a compound of the general formula I as defined in claim 1.  
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27. A method for treating a disease caused by infection with a parasite of the genus Plasmodium which comprises administering to a host in need of such treatment a therapeutically effective amount of a compound of the general formula I according to claim 16.

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